REMARKS

The indication that claims 5-6 and 19 have been allowed is acknowledged with thanks.

The specification has been amended at page 9, line 25 to make an editorial change therein, bearing in mind the criticism in the Official Action, to place the application in condition for allowance at the time of the next Official Action.

The Official Action objects to the form of claim 12, which has been amended. Reconsideration and withdrawal of the objection are respectfully requested.

Claims 1, 4, and 11 were rejected as unpatentable over KNAPP 5,325,442 in view of ROZIERE et al. FR 2 756 048. Claims 2 and 9 were rejected further in view of VRANISH 5,373,245; claim 7 was rejected further in view of COVELEY 5,952,835; claim 8 was rejected further in view of STANLEY et al. 6,703,845; claims 10, 12, and 14 were rejected further in view of LANE 5,623,552; claim 13 was rejected further in view of CRAWFORD 2002/0122006; claim 15 was rejected further in view of LIND 6,225,939; claim 16 was rejected further in view of MCDONNELL et al. 6,348,862; claim 17 was rejected further in view of HABRAKEN et al. 5,883,935; and claim 20 was rejected further in view of TRAVANTY et al. 4,987,583. Reconsideration and withdrawal of the rejections of claims 1-2, 4, 7-17, and 20 are respectfully requested.

ROZIERE discloses a floating capacitive bridge comprising a measuring electrode, a guard electrode and an earthed

electrode. ROZIERE does not disclose measurement of capacitance between an electrode and an object or body to be measured.

KNAPP teaches a fingerprint sensing device comprising sense electrodes covered by insulating material adapted for receiving a finger. A capacitor is formed by each sense electrode in combination with the respective overlying portion of the finger surface.

In operation of this sensing device, a finger whose print is to be sensed is placed on the sensing surface. One part of the finger surface is in contact with the sensing surface. Capacitances resulting from individual finger surface portions are then measured. The measurement constitutes an electronic image of the three dimensional form of the fingerprint surface. In a fingerprint recognition system, the electronic image is then analyzed and characteristical data is compared with stored characteristical data for identification and verification purposes. Thus, KNAPP discloses a measurement in which the finger is fixed: one electronic image is then performed.

The invention of claim 1 concerns a proximity detector which also is capable of producing images. But the present invention as defined in claim 1 is first a <u>proximity</u> detector which means that it first performs dynamic measurement. The proximity detector according to the invention is intended to be used in moving machines. It measures in real time the distance between each electrode and the object. Applicant has amended

claim 1 in order to express this notion of movement implied in a proximity detector. Indeed, the present invention clearly relates to dynamic detector:

"This proximity detector device allows an increase in the speed of displacement of current radiology machines, safety detection (anti-collision),…" , see page 7, lines 20-22 of the specification,

"The proximity capacitive detector according to the invention allows control of the approach of a vascular positioner for medical application,…", see page 7, lines 27-29,

"Said device measures in real time several absolute distances (one distance per electrode) separating the surface of the detector cap and the surrounding objects such as a patient or the table." See page 7, line 31 - page 8, line 2.

"The range of the sensors is greater than 100 mm with a resolution of the order of millimetres, which allows control of the speed at which the detector approaches the patient to be optimised (maximum speed with minimum risk of impact)." See page 12, line 33 - page 13, line 3.

On the contrary, KNAPP discloses a static detector: one measurement at once when the finger is fixed and in contact with the sense surface. In the KNAPP system, to allow several readings of the capacitance image of the fingerprint, it is necessary to ensure that the charge on the electrodes is removed or reduced before the sense elements are addressed again (see KNAPP column

8, lines 30-44). Thus, this means that KNAPP is not adapted for dynamic measurement as provided in the proximity detector according to the invention of amended claim 1.

Consequently, for all these reasons, it would not have been obvious to one ordinary skill in the art at the time the invention was made to combine KNAPP with ROZIERE for the purpose of reducing the effects of parasitic capacitances. The reduction of the effects of parasitic capacitances does not cope with the charge accumulated into the dielectric layer between the finger surface and the corresponding sense electrode. This charge forbids dynamic measurement as required for a proximity detector.

Claims 2, 4, 7-17, and 20 depend from amended claim 1 and are allowable for the same reasons.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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